

We claim:

1. Method for determining susceptibility of a cancer patient to chemotherapy comprising determining if cancer cells of said patient express wild type p53 with arginine at position 72 or wild type p53 with proline at position 72, and wherein proline at position 72 is indicative of poor susceptibility to chemotherapy, and arginine at position 72 is indicative of susceptibility greater than that where position 72 is proline.
2. The method of claim 1, comprising determining if the cancer cells of said patient express wild type p53 with arginine at position 72 or wild type p53 with proline at position 72 via PCR.
3. The method of claim 1, comprising determining if the cancer cells of said patient express wild type p53 with arginine at position 72 or wild type p53 with proline at position 72 via immunoassay.
4. The method of claim 1, wherein said cancer is a squamous cell cancer.
5. The method of claim 4, wherein said squamous cell cancer is head and neck cancer.
6. A method for improving susceptibility of a subject to chemotherapy wherein said subject suffers from cancer, and whose cancer cells express wild type p53 with proline at position 72, comprising administering to said subject an amount of wild type p53 with arginine at position 72 sufficient to augment said chemotherapy.
7. The method of claim 6, wherein said subject has received or is receiving anticancer therapy.
8. The method of claim 7, wherein said subject received or is receiving chemotherapy therapy.
9. The method of claim 6, further comprising adding wild type p53 which enhances apoptotic activity in said cancer cell.
10. Method for determining susceptibility of a cancer patient to chemotherapy comprising determining if cancer cells of said patient expresses p73 and determining if said patient

expresses a mutated form of p53, wherein expression of both p73 and a mutated form of p53 is indicative of decreased susceptibility to chemotherapy.

11. The method of claim 10, wherein said mutated form is a mutated form of wild type p53 having arginine at position 72.
12. The method of claim 10, wherein said mutated form is a mutated form of wild type p53 having proline at position 72.
13. The method of claim 10, comprising determining if the cancer cells of said patient express p73 and said mutated form of p53 via PCR.
14. The method of claim 10, comprising determining if the cancer cells of said patient express p73 and said mutated form of p53 via immunoassay.
15. The method of claim 10, wherein said cancer is squamous cell cancer.
16. The method of claim 15, wherein said squamous cell cancer is head and neck cancer.
17. A method for reducing drug resistance in a cancer patient, whose cancer cells express p73 and a mutated form of p53 comprising administering to said patient an inhibitor of mutated p53-p73 interaction in an amount sufficient to inhibit said interaction.
18. The method of claim 17, wherein said mutated form is a mutated form of wild type p53 having arginine at position 72.
19. The method of claim 17, wherein said mutated form is a mutated form of wild type p53 having proline at position 72.
20. The method of claim 17, wherein said cancer is head and neck cancer.
21. The method of claim 17, wherein said inhibitor is RNAi, an antisense molecule, or an antibody which binds specifically to a form of p53.
22. A method for screening a compound for cancer causing or cancer inhibiting properties, comprising contacting a cell which expresses a mutated form of wild type p53 with

arginine at position 72 or proline at position 72, determining impact of said compound on apoptosis of said cell, and comparing it to apoptosis of a cell expressing said mutant which has not been contacted with said compound, a difference therebetween indicating that said compound is cancer causing or cancer inhibiting.